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EXAMINER
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LIU, SUE XU

ART UNIT	PAPER NUMBER
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1639

MAIL DATE	DELIVERY MODE
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07/22/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/811,331	<b>Applicant(s)</b> LAM ET AL.	
	<b>Examiner</b> SUE LIU	<b>Art Unit</b> 1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21, 28 and 29 is/are pending in the application.
- 4a) Of the above claim(s) 8-11, 13, 14, 19, 21 and 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 12, 15-18, 20 and 29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/9/08</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/8/2008 has been entered.

### ***Claim Status***

2. Claims 22-27 have been cancelled as filed on 5/8/08.  
Claims 1-21, 28 and 29 are currently pending.  
Claims 8-11, 13, 14, 19, 21 and 28 have been withdrawn.  
Claims 1-7, 12, 15-18, 20 and 29 are being examined in this application.

### ***Election/Restrictions***

3. Applicant's election with traverse of Group I (Claims 1-21 and 28) in the reply filed on 11/27/06 is as previously acknowledged.

4. Applicant's election of species as specified in the Reply filed on 11/27/2006 (Reply, p. 12+) and 4/9/07 (p. 11+) is as previously acknowledged. Accordingly, Claims 8-11, 13-14, 19, 21, and 28 are withdrawn due to non-elected species.

***Priority***

5. This application claims benefit of provisional application 60/458,470 filed on 03/28/2003.

6. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) as follows:

The later-filed application must be an application for a patent for an invention which is also disclosed in the prior application (the parent or original nonprovisional application or provisional application). The disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

The disclosure of the prior-filed application, Application No. 60/458,470, fails to provide adequate support or enablement in the manner provided by the first paragraph of 35 U.S.C. 112 for one or more claims of this application.

The instant claims (claim 1) have been amended to recite "the first reactive component simultaneously reacts with both a first scaffold functional group and a first coding functional group", which recitation of "simultaneous" reactions for both of the scaffold and the coding groups do not appear to have support in the said provisional application.

Thus, the instant claims do not obtain the priority benefit of the '470 provisional application.

***Specification***

7. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification. MPEP 608.01.

***Claim Rejections Maintained***

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(Note: the instant claim numbers are in bold font.)

**Lebl**

9. Claims 1-7, 12, 15-18, 20 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lebl et al (US 5,840,485; 11/24/1998; cited in IDS; cited previously).

The instant claims recite a method for preparing a library of compounds, comprising: a) providing a plurality of individual synthesis templates each comprising a solid support, wherein said solid support has an interior portion and an exterior portion each with a plurality of reactive functional groups, wherein said solid support is linked to a scaffold via a scaffold linker, wherein said scaffold has at least two scaffold functional groups, and wherein said solid support is

Art Unit: 1639

separately linked at least two coding tag precursors, each comprising a coding functional group and a coding linker; b) contacting a first synthesis template with a first reactive component such that the first reactive component simultaneously reacts with both a first scaffold functional group and a first coding functional group, wherein said first scaffold functional group reacts with said first reactive component to afford a first scaffold building block, and wherein said first coding functional group reacts with said first reactive component to afford a first coding building block; c) contacting said first synthesis template with a successive reactive component such that a subsequent scaffold functional group reacts with said successive reactive component to afford a subsequent scaffold building block, and a subsequent coding functional group simultaneously reacts with said successive reactive component to afford a subsequent coding building block; d) repeating step c) until a first compound has been prepared; and e) subjecting additional synthesis templates to steps b) - d) with additional reactive components to prepare additional compounds of said library of compounds, thus preparing said library of compounds.

Lebl et al, throughout the patent, teach using solid substrate comprising an interior and an exterior for synthesis of various compounds including “coding molecules” and “synthetic test compound”. (See Abstract)

The instant claimed invention and the corresponding teachings of the reference are as follows (with the instant claim recitation in *Italic*):

**For claim 1:** *a) providing a plurality of individual synthesis templates: solid support has an interior portion and an exterior portion:* The reference teaches solid support comprising an

Art Unit: 1639

interior portion and an exterior portion (such as surface portion) (e.g. Claim 1; Figure 1; col. 6, lines 11+).

*each with a plurality of reactive functional groups:* The reference also teaches the exterior and the interior of the beads (solid support) comprise various functional groups. (e.g. col. 12, lines 15+)

*wherein said solid support is linked to a scaffold via a scaffold linker, wherein said scaffold has at least two scaffold functional groups:* The reference teaches the solid support comprise a “scaffold molecule” comprising at least two functional groups such as the ones contained by amino acids (modified or otherwise) (e.g. Claims 6 and 8; col. 12, lines 50+). The reference also teaches various linkers to link the various functional groups to the solid support. (e.g. cols. 12-13).

*wherein said solid support is separately linked to at least two coding tag precursors, each comprising a coding functional group and a coding linker:* The reference teaches the “coding molecule is a branched polypeptide” (e.g. Claim 11; Figure 1), and “on each said support, the structure of the test compound is encoded by a plurality of species of coding molecules” (e.g. claim 13), which read on the “at least two coding tag precursors” linked on the solid support of the instant claim. The reference teaches “the test compound and coding molecule can be attached separately to the support via a linker” (e.g. col.7, lines 16+). The reference also teaches there are multiple copies of the synthesized compounds (including the coding compounds) that are attached to the same bead (e.g. col.7, lines 19+; col.8, lines 16+). Thus, each copy of the coding tag precursors can be considered as an individual “coding tag precursor”, and the multiple copies of the attached coding tag precursors on the same bead read

Art Unit: 1639

on the “at least two coding tag precursors” because each individual copy is attached “separately” to the solid support.

*b) contacting a first synthesis template with a first reactive component such that the first reactive component simultaneously reacts with both a first scaffold functional group and a first coding functional group, wherein said first scaffold functional group reacts with said first reactive component to afford a first scaffold building block, and wherein said first coding functional group reacts with said first reactive component to afford a first coding building block:*

The reference teaches chemically linking subunits (read on reactive components) to the scaffold (or synthetic test compound) and the coding molecule (e.g. cols. 10-11; especially, col. 10, lines 55+; col.11, lines 36+). The reference also teaches reacting the “subunit” (or the reactive component) to both the scaffold functional group and the coding functional group such as “linking of the same polymer subunit to all of the portions of the solid support” (e.g. col.11, lines 30+), and “the same polymer is elongated on the test arm [scaffold] as on the coding arm” (e.g. col.11, lines 37+; claims 6-8; col.60, ll 64+), which read on the limitation that the “first reactive components” react with both the scaffold and the coding groups on the solid support of the instant claim. In addition, as discussed above, the reference teaches there are multiple copies of the synthesized compounds (including the coding compounds) that are attached to the same bead (e.g. col.7, lines 19+; col.8, lines 16+). Thus, each copy of the coding tag precursors can be considered as an individual “coding tag precursor” and/or “scaffold function groups” (or synthetic compounds). For example, the multiple copies of the attached synthetic compounds (e.g. the multiple copies of peptides produced on the exterior of the beads) of the reference read on both the “scaffold functional groups” and “coding tags”. Two copies of the peptides attached



Art Unit: 1639

to the exterior of the beads, for example, read on the “scaffold functional groups” (or compounds), and another two copies of the peptides attached to the exterior of the beads read on the “coding tags”. The instant specification states “a coding building block that is identical to or mimics the scaffold building block” (e.g. spec. [0014]; emphasis added). That is the coding tag can be the same as the scaffold compound according to the instant specification. Applicants also stated in the Reply (entered 5/8/08, p.13, para 3) that “a coding group is identical to or mimics the scaffold group” (emphasis added), which supports the claim interpretation that the various compounds (including both the synthetic compounds for target testing and the coding compounds) can be the same polymers as they can be “identical”. Thus, each individual copy of the produced polymer from each functional sites on the same bead of the reference can be considered as the various scaffold and coding groups.

As the reference teaches various portions (or all of the portions) of the beads are reacted the same time with a reactive component (e.g. col.11, lines 30+), the reference’s teaching reads on “simultaneously” reacting “a first reactive component” with both the scaffold and coding groups as currently claimed.

*c) contacting said first synthesis template with a successive reactive component such that a subsequent scaffold functional group reacts with said successive reactive component to afford a subsequent scaffold building block, and a subsequent coding functional group reacts with said successive reactive component to afford a subsequent coding building block; d) repeating step c) until a first compound of said library of compounds has been prepared; and e) subjecting additional synthesis templates to steps b) - d) with additional reactive components to prepare additional compounds of said library of compounds, thus preparing said library of compounds:*

Art Unit: 1639

The reference teaches repeating the synthesis steps and creating various polymers (e.g. col. 11, lines 21+; col.6, lines 46+), which read on the repetitive synthesis of the library of compounds of the instant claim.

**For Claim 2:** The reference teaches cleaving the synthetic compounds from the solid support (col.34, lines 35+), which reads on the cleaving step the instant claim.

**For Claim 3:** The reference teaches elongating the same polymer on the “test arm” as the “coding arm” (col. 11, lines 36+), which reads on the same number of functional groups of instant claim.

**For Claim 4:** The reference teaches nucleophilic displacement reactions (e.g. claim 23; col.79, 13+), which reads on the nucleophilic substitution of the instant claim.

**For Claim 5:** The reference teaches parallel synthesis of the coding and the test compounds (e.g. col. 11, lines 10+) and the generation of a library of test compounds together (e.g. cols. 10-11), which read on the parallel synthesis of the compounds of the instant claim.

**For Claim 6:** The reference teaches general formula for the solid support comprising synthetic compounds and coding compounds such as depicted in Figure 1 (especially Figure 1C comprising an interior and an exterior), and as depicted in cols. 41-42. For example, the schematic diagram of cols. 41-42 shows linkers for both the coding and the testing strands (reads on “L” and “L’” of instant formula I), a double circled region as the solid support (interior and exterior of formula I), functional groups protected by Fmoc (reads on “(G<sup>i</sup>)<sub>n</sub>” of formula I) as well as Boc and Alloc protection groups (read on “(G’)<sub>i</sub>” of formula I).

**For Claim 7:** The reference teaches the “coding molecule is a branched polypeptide” (e.g. Claim 11; Figure 1), and “on each said support, the structure of the test compound is

Art Unit: 1639

encoded by a plurality of species of coding molecules” (e.g. claim 13). The reference also teaches multiple numbers of coding molecules are attached to the insides of individual resin beads (i.e. the solid support) (e.g. col.16, lines 7+). Thus, the multiple coding molecules on the same resin bead read on the “L’-(G’)<sup>2</sup>” and the “L’-(G’)<sup>1</sup>” of the instant Claim 7. The reference also teaches multiple (at least two) test compounds linked to the “scaffold” (e.g. Figures 3-4; col. 28), which read on the “G1” and “G2” groups of formula Ia of the instant claim.

**For Claim 12:** The formula III depicted in the instant claim 12 is essentially the same as the formula (I) of the instant claim 6. Thus, the reference’s teaching as discussed above read on the instant claim.

**For Claims 15 and 29:** The reference teach each coding subunit correspond to a test compound subunit (e.g. cols.9-10; especially, col.10, lines 4+; col.6, lines 34+).

**For Claim 16:** The reference teaches a decoding step by cleaving the coding compounds such as peptides from the solid support and sequence the peptide (e.g. col.37, lines 5+), which reads on the decoding step of the instant claim.

**For Claim 17:** The reference teaches using mass spectrometry to determine the synthesized compounds or coding compounds. (e.g. cols.6-7, bridging para; col.33, lines 22+).

**For Claim 18:** The reference teaches using one type of scaffold to generate a library of different compounds (e.g. Figures 7 and 8; col.7, lines 60+).

**For Claim 20:** The reference teaches using compounds such as amino acids, and polyaromatic structures as scaffolds (e.g. Figure 3; Claims 37-89), which read on the elected scaffold species of the instant claim 20.

Discussion and Answer to Argument

10. Applicant's arguments have been fully considered but they are not persuasive for the following reasons (in addition to reasons of record). Each point of applicant's traversal is addressed below (applicant's arguments are in italic):

*Applicants assert Lebl reference does not teach A) "separate attachment of the coding groups to the solid support" and B) "simultaneous preparation of the coding group and the scaffold group". (Reply, pp.13+).*

Applicants are respectfully directed to the above rejection for detailed rejection how the cited reference teaches all element of the instant claimed invention.

For element A). The reference teaches "the test compound and coding molecule can be attached separately to the support via a linker" (e.g. col.7, lines 16+). The reference also teaches there are multiple copies of the synthesized compounds (including the coding compounds) that are attached to the same bead (e.g. col.7, lines 19+; col.8, lines 16+). Thus, each copy of the coding tag precursors can be considered as an individual "coding tag precursor", and the multiple copies of the attached coding tag precursors on the same bead read on the "at least two coding tag precursors" because each individual copy is attached "separately" to the solid support.

For element B.) As discussed above, the reference teaches there are multiple copies of the synthesized compounds (including the coding compounds) that are attached to the same bead (e.g. col.7, lines 19+; col.8, lines 16+). Thus, each copy of the coding tag precursors can be considered as an individual "coding tag precursor" and/or "scaffold function groups" (or synthetic compounds). For example, the multiple copies of the attached synthetic compounds (e.g. the multiple copies of peptides produced on the exterior of the beads) of the reference read

on both the “scaffold functional groups” and “coding tags”. Two copies of the peptides attached to the exterior of the beads, for example, read on the “scaffold functional groups” (or compounds), and another two copies of the peptides attached to the exterior of the beads read on the “coding tags”. The instant specification states “a coding building block that is identical to or mimics the scaffold building block” (e.g. spec. [0014]; emphasis added). That is the coding tag can be the same as the scaffold compound according to the instant specification. Applicants also stated in the Reply (entered 5/8/08, p.13, para 3) that “a coding group is identical to or mimics the scaffold group” (emphasis added), which supports the claim interpretation that the various compounds (including both the synthetic compounds for target testing and the coding compounds) can be the same polymers as they can be “identical”. Thus, each individual copy of the produced polymer from each functional sites on the same bead of the reference can be considered as the various scaffold and coding groups.

As the reference teaches various portions (or all of the portions) of the beads are reacted the same time with a reactive component (e.g. col.11, lines 30+), the reference’s teaching reads on “simultaneously” reacting “a first reactive component” with both the scaffold and coding groups as currently claimed.

*Applicants also asserted the inventive method requires “no protection groups” and the coding groups are not “linked together” (Reply, pp.14+).*

In response to applicant's argument that the references fail to show certain features of applicant’s invention, it is noted that the features upon which applicant relies (i.e., requires “no protection group”; coding groups are not “linked together” or “individual coding groups

Art Unit: 1639

separately attached to the solid support”) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In addition, in regard to the coding groups, contrary to applicants’ assertion, the instant claim language is broad and encompassing building polymers (through repeatedly attaching reactive components to coding tag functional groups) as the coding tags.

***New Claim Objection(s) / Rejection(s)***

***Claim Rejections - 35 USC § 112***

11. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

***Scope of Enablement Rejection***

12. Claims 1-7, 12, 15-18, 20 and 29 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a method of preparing a library of compounds comprising reacting the same “reactive component” to the same functional groups as both scaffold functional groups and coding functional group on the same solid support simultaneously, does not reasonably provide enablement for reacting the same “reactive component” to scaffold groups and coding groups having different chemical functional groups on the same beads;

while being enabling for a method of preparing a library of compounds comprising simultaneously reacting to both the scaffold functional groups and coding functional group on the same portion or topological phase of the same solid support, does not reasonably provide enablement for “simultaneously” reacting to both the scaffold groups and coding groups on different portions or topological phases of the same solid support;

The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Factors to be considered in determining whether a disclosure meets the enablement requirement of 35 U.S.C. §112, first paragraph, have been described *In re Wands*, 8 USPQ2d 1400(1988). They are:

1. The breadth of the claims;
2. The nature of the invention;
3. The state of the prior art;
4. The predictability or lack thereof in the art
5. The level of skill in the art;
6. The amount of direction or guidance present;
7. The presence or absence of working examples;
8. The quantity of experimentation needed.

*The nature of the invention / The breadth of the claims*

The instant claims (especially Claim 1) are drawn to a genus of method of making a library compounds using various components. The instant specification broadly defines the various components including “library of compounds” (p. 6; [0022]), “compound” (p.6, [0023]),

Art Unit: 1639

“synthesis template” (p.7, [0025]), “scaffold functional group” (p.7, [0027]), etc. Each of the terms is broadly defined to encompass almost any chemical entities. For example, the term “reactive component” is defined as “a chemical or reagent that is used to modify a functional group into a building block” *[sic]* (p.7, [0031]). Thus, the “reactive component” can be any reactive chemical entity. The instant claims are, therefore, drawn to any chemicals. Neither the instant specification nor the claims have demonstrated common structure and/or function for the claimed genres of “scaffold functional groups”, “synthesis template”, “compound”, “reactive component”, “linkers”, etc. In addition, no representative number of species for each claimed genus is provided to show possession of the claimed genres.

The nature of the instant claimed invention is a method of generating compounds (such as polymers) by iterative chemical synthesis using building blocks as well as chemical functional groups attached to solid support. The instant claims are also drawn to a method of reacting one compound (reactive component) to different functional groups (i.e. different chemical reactive groups), as well as forming “simultaneous” chemical reactions on groups at different locations using the same reactant.

*The state of the prior art/ The predictability or lack thereof in the art*

The state of the art does not teach that any chemical reactant can be reacted with various different chemical functional groups simultaneously. For example, Song et al (Journal of American Chemical Society. Vol. 125: 6180-6188; 2003; cited in IDS) state the coding block and the scaffold groups on the solid support need to have the same chemical reactivity (e.g. p.6181, last para). As pointed out by applicants in the Reply (entered 5/8/08; pp.14+) as well as



Art Unit: 1639

discussed by Song et al, for scaffold groups and coding blocks having different functional groups, the synthesis would require attaching protection groups (as well as deprotection steps) on the different functional groups, and thus rendering “simultaneous” chemical reaction on the different functional groups unlikely.

In addition, the Lebl reference (cited above; citation omitted) teaches the different chemical groups (including the scaffold (or synthetic testing compounds) and coding groups located at different topological areas (such as exterior and interior of a bead) of the same solid support would have different accessibility of the added chemical reactants (e.g. col.14-15). That is the groups located in the “interior” of the beads would be in contact with an incoming reactant until the reactant has passed exterior and entered the interior. Thus, it necessarily results in a time difference between the chemical groups located on the exterior and the interior of the beads, and renders a “simultaneous” reaction on both the exterior and the interior of the solid support impossible.

*The level of one of ordinary skill*

The level of skill would be high, most likely at the Ph.D. level.

*The amount of direction or guidance present / The presence or absence of working examples*

The only guidance present in the instant specification is directed to synthesizing compounds on the same beads using identical or the same chemical reactive groups for both the coding and the scaffolding groups.

*The quantity of experimentation needed*

Due to the unpredictabilities of making libraries of compounds of on solid support by reacting the same compound to different chemical groups simultaneously at different location on the same bead, undue experimentation would be required. The art has not demonstrated any reactive component can be reacted with any different chemical functional groups. Because the instant specification only provides guidance for examples using identical chemical functional groups, undue experimentation would be required to practice instant claimed method of producing any compounds using any chemical groups/reactants.

*Conclusion*

Therefore based on the evidences as a whole regarding each of the above factors (e.g. factors 1-8), the specification, at the time the application was filed, does not satisfy the enablement requirement for the instant claimed method.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue Liu whose telephone number is 571-272-5539. The examiner can normally be reached on M-F 9am-3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James (Doug) Schultz can be reached at 571-272-0763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1639

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/SUE LIU/  
Examiner, Art Unit 1639  
7/16/08